



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

### Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

### About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

24503321159



LANE MEDICAL LIBRARY STANFORD STOR  
L736 .H94 1867  
A popular treatise on colds and affections

A POPULAR TREATISE  
ON  
COLDS AND CATARRH  
OF THE  
AIR-PASSAGES AND LUNGS.

L736  
H94  
1867

FIFTY CENTS.

LANE

Cooper  
MEDICAL



LIBRARY

572  
LEVI COOPER LANE FUND

Aug. Frazer  
1881

2  
1881 N. 94.

Chas. C. Jackson  
1871

A

# POPULAR TREATISE

ON

## COLDS LANE LIBRARY

AND AFFECTIONS OF

# THE AIR PASSAGES AND LUNGS.

BY

ROBERT HUNTER, M. D.,

AUTHOR OF "PRACTICAL LETTERS ON THE NATURE, CAUSES, AND CURE, OF  
CATARRH, SORE THROAT, BRONCHITIS, ASTHMA, AND CONSUMPTION;  
CARBON VS. OXYGEN; THE CARBON THEORY OF CONSUMP-  
TION; OXYGENATED AND MEDICATED INHALATIONS  
IN DISEASES OF THE LUNGS; FORMERLY  
EDITOR OF THE JOURNAL OF DIS-  
EASES OF THE CHEST."  
ETC., ETC.

REVISED FROM THE SIXTH LONDON EDITION.



NEW YORK:  
JAMES MILLER,  
522 BROADWAY.

1867.

B

Y9A9B11 39A1

Entered according to Act of Congress, in the year 1867,  
JAMES MILLER,  
In the Clerk's Office of the District Court of the United States  
for the Southern District of New York.

L 150  
H94  
1867

NOW IN COURSE OF PREPARATION, AND WILL SHORTLY BE PUBLISHED,

A TREATISE ON DISEASES OF THE  
*Bronchial Tubes, Embracing Bronchitis and Asthma.*

By ROBERT HUNTER, M. D.

Price.....50 Cents.

---

TO BE FOLLOWED BY A

*Treatise on Chronic Coughs and Tubercular Consumption.*

By ROBERT HUNTER, M. D.

Price.....50 Cents.

---

AND A

*Treatise on Diseases of the Heart.*

By ROBERT HUNTER, M. D.

Price.....50 Cents.

Will be sent free by mail, on receipt of the price.

JAMES MILLER, PUBLISHER,

522 BROADWAY, NEW YORK.





## INTRODUCTION.

---

HAVING long devoted myself exclusively to the study and treatment of the various diseases of the lungs and air-passages, I purpose to explain (in this and subsequent publications) the manner in which they are contracted, the precautions which are necessary to prevent them, and the general plan of treatment to be pursued for their removal.

The preservation of health depends on the avoidance of those *influences* which tend to destroy it. Unless these are generally known, it is impossible that they can be avoided, or disease prevented.

It is to the medical profession that the public naturally look for guidance in these matters, and yet, strange as it may appear, it is only during the panic attending some unusual visitation, as of

cholera, or yellow fever, that any measure of information is vouchsafed to them.

From the earliest times it has been the foolish policy of the profession to surround every thing pertaining to the healing art with mystery, and hence mankind have been left in ignorance of the simplest laws of health. Few people, even among those of liberal education, have any definite idea of the common causes of disease or the nature of remedies, or pretend to know why this or that medicine is prescribed by the physician. When overtaken by sickness, they shut their eyes and understanding, and open their mouths, ready to swallow whatever the doctor chooses to put into them.

The famous Dr. Beddoes, writing on this point, observes :—

“Medicine is an art to which some look for health, and others for a livelihood. Unless the public be sufficiently enlightened to control those who exercise this art, the latter principle will encroach so as to obtain too large a share in determining its condition, and there will always be some danger, lest the advantage of the patient should be sacrificed to the interest, ease, or pride of the practitioner.”

And the Lord Chief Justice of England, on a recent occasion, wisely said :—

“I would be the last man for a single moment to deprecate

“the idea of popularizing knowledge upon such important matters, so far as they can be brought within the sphere of popular knowledge. I quite agree that if you can really make people sensible of what are the causes which lead to such a disease as consumption; if you can make them sensible of what are the symptoms against which they ought to be upon their guard; if you can make them understand what they ought to do, with a view to prevent consumption; or what they ought to do when consumption has once been established, you are doing a vast amount of good to the mass of the community. In every branch of science, so far as you can make science matter of popular knowledge, so much the better.”

To the liberal and enlightened physician, nothing is so satisfactory as the consciousness that his patients are sufficiently intelligent to understand the object of his prescriptions, and to follow him, step by step, in the progress of his treatment; and surely nothing ought to be so consolatory to the patient himself as to be able to do this. Blind credulity on the one hand, and dark mystery on the other, are only worthy an age of ignorance and superstition. The more enlightened the public are in matters pertaining to health, the more rapid will be the progress of the profession of medicine, and the higher and nobler the aims and efforts of its practitioners.

In this pamphlet, which is intended to form **PART FIRST** of a complete practical treatise on affections of the throat and lungs, my aim has been to use language intelligible to all, in describing matters which it is desirable for all to understand. It has been specially prepared for the information and guidance of the public. The reader will find in it a plain account of **COLDS**, and of the several affections of the *nose* and *throat*. I have pointed out how these are contracted, the symptoms by which they may be known, the means to be adopted for their prevention, and their treatment. I have illustrated the several parts affected, and given cuts of the instruments on which I rely for their cure. Wherever it was possible to do so, I have given in full the treatment to be employed, with prescriptions for the preparation of the remedies to be used. They will doubtless prove, in many cases, of inestimable value for the relief of suffering.

For nearly twenty years I have made pulmonary complaints a special study, during which time I have carefully investigated the various theories advanced and methods of treatment employed, not only in this country, but also in the great capitals

of Europe. I therefore speak from ample observation and long and extensive experience, when I give it as my opinion, that the almost universal failure of the profession to cure these diseases, is due not so much to the inveteracy of their hold, or the malignity of their nature, as to the erroneous views entertained regarding them, and the unscientific manner in which they have been treated.

I shall, in subsequent parts, explain the symptoms and treatment of bronchitis, consumption, and asthma. But, in order to understand their true origin and nature, it was necessary to begin with *affections of the nose and throat*, because it is in these that the graver diseases take their rise. They are, in fact, the first links in the chain of *causation*. By breaking up these affections, we arrest the development of tubercles before the lungs have become affected, and thus *prevent* consumption. It is certainly easier to do this than it is to effect the cure of confirmed disease, however efficacious our treatment in individual cases, or satisfactory in its general results. A *cold*, neglected, prepares the way for chronic *catarrh* of the nose. Catarrh speedily extends itself to the *throat*. From the throat, each

breath we draw carries the irritation onward and downward, toward the *bronchial tubes*, once arrived at which, none can tell when tubercles may form, or how soon bronchitis may end in consumption.

ROBERT HUNTER, M. D.

9 Brevoort-Place, 10th street, }  
NEW YORK, Nov. 1, 1867. }

## PART FIRST.

---

### ON COLDS AND AFFECTIONS OF THE NOSE.

---

#### CHAPTER I.

##### COLDS.

IN considering the causes which undermine the *strength* of the lungs and produce disease, I begin with *colds*, because these are, directly or indirectly, the source of most diseases of the *breathing organs*.

By the term "*a cold*," physicians mean that some internal part or organ has become gorged and overloaded with blood, *caused* by the action of cold on the surface of the body.

The action of cold on the external parts drives the blood to the internal organs, and causes the vessels to shrink up; in consequence of which the skin loses its sense of warmth, and a general feeling of *chilliness* is experienced. The blood, driven from the *outer* parts, collects in some mem-



brane or organ *deeper seated*, the effect of which is to impair its function, or office, and lay the foundation of disease.

An organ oppressed by an overload of blood is said to be "*congested*." The eye is congested when it is *red*, or "*bloodshot*." If a severe cold drives the blood to the lungs, we say the patient has "*congestion of the lungs*." This is the first step toward *inflammation*, and hence, to prevent disease from becoming *seated*, the first effort of the physician must be to draw the blood back again to the skin relieving the oppressed organ, and restoring the equilibrium of the circulation.

Fortunately for mankind, *slight* colds are not generally followed by congestion of the great *organs* of the body. The blood is merely driven from the *outer* surface, or skin, to the *inner* surface, or mucous membrane, producing *congestion* of the *nose, throat, or bronchial tubes*.

We distinguish colds by the particular part upon which they chance to fall. Hence, a cold in the head is called "*Influenza*;" a cold in the nose, "*Catarrh*;" a cold in the throat, "*Quinsy*;" a cold in the wind-pipe, "*Croup*;" a cold in the bronchial tubes, "*Bronchitis*;" and so on.

The *injury* received from a cold is not *felt* in the part on which the impression falls, but in that to which the *blood is driven*. Wet feet, or a draft of air striking upon the back, gives us cold; yet the

effect is not found in the *feet* or *back*, but in the *throat*, *lungs*, &c., which are parts distant from the seat of the impression.

The *danger* of a cold is estimated by the severity of the congestion which follows it, and by the importance of the organ which becomes its seat.

A *slight* cold only produces slight congestion, and hence seldom extends to the lungs or other important organs. A cold in the *lungs* is more serious than one in the *head* or *throat*, simply because the impression is *deeper*, and the organ *more important*. Any impairment of the function of the lungs is attended with serious peril to health. Congestion of the lungs, caused by cold, is only another name for the first stage of *pneumonia*, and speedily becomes a disorganizing and dangerous disease.

Assuming that you now understand the *nature* of colds sufficiently to be able to estimate the importance of avoiding, as much as possible, every thing which tends to produce them, we will pass to the consideration of their *causes*.

There is, in reality, but *one true cause*, and that one is explained by the term "*a cold*," *i. e.*, the effect of *cold* on the human body. But although there be but one *real cause*, there are many different ways in which such cause operates. It is common to hear persons complain of their liability to take cold, who ignorantly expose themselves from day to day to influences which no constitution is strong enough

to withstand. I will enumerate a few of the sources of colds. 1st. Clothing too light for the season, or sudden changes of clothing. 2d. Boots too thin to protect the feet from *cold* and *dampness*. 3d. Drafts of air falling upon some part of the body through a cracked pane, a badly fitting window, or imperfectly closed door. 4th. Retiring from heated rooms or places of amusement without proper care in wrapping up. 5th. Sitting in a cool place to rest after taking active exercise in walking, dancing, &c. Any one of these causes is enough to give us cold. It is a fact not generally known, that if we lie down upon a sofa, and fall asleep with our clothes on, we almost certainly take cold. And what is singular, it does not make any material difference how we may be clothed at the time. A *shawl* or *overcoat* thrown over us affords an ample protection. We are much more susceptible to cold at *night* than in the daytime, and when *asleep* than awake. So also we can ride in the wind on the *top* of a coach with perfect impunity, when we would be very liable to take cold if ensconced *inside*. The *feet* and *limbs* are the parts of the body most liable to become *chilled*, and hence these should always be the best protected. How common it is for persons to awake in the morning with the extremities *below the knee* quite cold, while every other part of the body is comfortably warm. An extra blanket thrown across the lower half of the

bed would effectually guard against colds from this source.

Then, the liability to take cold is very different in different persons. What one will bear without injury would prove fatal to another. You must consider not only the natural strength of your constitution, but your mode of life. If naturally delicate, with a feeble circulation of blood, evinced by a tendency to *coldness of the feet and hands*, your clothing should be of the warmest description. Persons of a full habit and active circulation, evinced by habitual *warmth of the hands and feet*, can do with much less clothing. Persons who spend most of their time in active exercise in the open air require less clothing than those of sedentary habits who are shut up in banks and commercial houses during the day, and seldom go out except in passing to and from their business.

There is still another point which it is necessary to consider in estimating the liability to colds. Some persons are very prone to congestions of the *mucous membrane* of the nose, throat, &c. The slightest possible chilling of the surface is sufficient to drive the blood inward. It is hardly necessary to say that such persons are peculiarly liable to colds. Then, again, a chronic inflammation of the mucous membrane—*catarrh, sore throat, &c.*—increases this liability by *attracting* an undue quantity of blood to these parts. Where the mucous membrane

is very irritable, *dust, smoke, &c.*, tend to increase the irritation, and still further favor the taking of cold, by drawing blood from the outward surface to the irritated parts.

These are all the points important to notice regarding the *manner* in which colds are taken. I now come to the *symptoms* which indicate that you are "*taking cold.*"

*A sense of chilliness* is the earliest symptom in every case, and should always be regarded as a warning. It may be slight, and confined to the exposed part, or general, and attended by a tendency to *shiver*, with an inclination to *chattering of the teeth*.—This latter indicates a *deeper* impression of cold than the former. A desire to *sneeze*, with a feeling of *stuffing in the nose*, usually attend the taking of cold, and indicate the beginning of congestion of the mucous membrane of the nose.

Whoever experiences these symptoms, should take prompt steps to restore the circulation, before the blood has had time to *stagnate* in the internal organs, and lay the foundation of disease.

#### PREVENTION OF COLDS.

In a climate so variable as this, it is not possible to wholly prevent colds, but it is easy to greatly diminish our liability to them, by increasing our means of resistance. In point of importance, the

first of these is undoubtedly *clothing*. The feet and limbs should never be allowed to become *damp* or *cold*. No matter how thick our boots and flannel may be, if they fail to preserve the *absolute warmth* of the feet and extremities, they are insufficient. Should there be a tendency to coldness of these parts, the thickest "*fleecy hosiery*" should be worn next the skin, not only with the view of preserving warmth, but improving the circulation. If your habits are *sedentary*, never go into the open air without increasing your clothing proportionally to the season, always remembering that those parts which are the farthest from the *heart* are the most liable to become *chilled*.

The next injunction necessary to observe, is to avoid *drafts of air*. Never sit between the window and a fire, nor between the door and the fire, if you can possibly avoid it. Look out for the drafts to which each particular room is subject, and always endeavor to avoid them. Do not lie down with your clothing on, or if you do, be careful to cover yourself with a shawl or overcoat. Lastly, before closing your eyes at night, see that you have plenty of covering *over your feet*. Observe these precautions, and you will escape many colds, and greatly diminish one of the chief sources of danger to your health. But the most cautious people are still liable to be caught, and it is therefore well for all to know how to act under such circumstances. This brings us to the

## TREATMENT OF COLDS.

Much depends on the *time* at which remedial measures are commenced. It is easy to stop a cold *at the outset*, but difficult to uproot it after it has become *seated*. If taken within a few hours after experiencing the first sense of *chilliness*, or fit of *sneezing*, it can generally be arrested in a *single night*, but begin twenty-four hours later, and you will be fortunate to get entirely rid of it in *ten days* or a *fortnight*.

By remembering that a cold is produced by the *chilling* of the surface of the body, you will understand that the first object to be attained by treatment, is to draw the blood back again, and restore warmth to the skin and superficial parts. If the feet are *damp*, or *cold*, you will, of course, immediately put on warm dry stockings. The moment you can do so, *retire to bed* and wrap up warmly; next take some mild stimulating drink, *as hot as you can drink it*—a bowl of thin gruel, well sweetened, and with the addition of a wine-glass of good brandy and a little spice, will be found one of the best. It should be taken as soon as you are in bed. If the feet and limbs do not speedily regain their accustomed warmth, wrap them in *heated flannels*, and apply a bottle of hot water to the soles.

This is generally enough to recall the blood to the surface, and relieve the oppressed internal organs.

But in more severe cases you should not rest here—half fill the *inhaling* instrument (see page ) with *hot* water; to the water add a teaspoonful of *tincture of conium*, and two teaspoonfuls of *camphorated tincture of opium*; then *inhale* the warm sedative vapor well into the lungs, and continue to do so for about *ten or fifteen minutes*. Repeat this, using fresh hot water and medicines every hour, until you break out into a *perspiration* or fall asleep; after which nature will complete the cure. If the symptoms of the cold have passed off by the morning, which will probably be the case, you should get up and dress yourself *warmly*, but do not go out, if it be possible to avoid doing so, until the following day. This gives the system time to rally before any fresh exposure endangers a relapse.

I have seldom known this plan of treatment to fail, if employed on the first night following taking a cold. It is a practical common-sense course, which any person can adopt without the aid of a physician. It counteracts the *tendency* of the disease, and helps nature to throw it off.

When a cold is *neglected* for several days it becomes *seated*, and produces changes in the affected parts, which cannot be thus easily removed. It then requires more active and protracted measures, which will be described under the head of Catarrh, Bronchitis, &c.

The dangers which surround *neglected colds* are



so perilous to the health, that I cannot speak too strongly in regard to the necessity of attending to them. Colds are the prolific source whence spring many fatal maladies ; and among these, those having their seat in the organs of respiration are of paramount importance, not only as regards their malignity, but also because of the frequency of their occurrence, and the tenacity of their hold upon the system.

---

## CHAPTER II.

### CATARRH OF THE NOSE.

By a *Catarrh* is meant a congested and inflamed condition of the mucous membrane lining the nostrils. We breathe through the nose ; hence its mucous membrane is more liable to injury than any other part from sudden changes in the temperature of the air, and from irritating impurities floating in it. In nine cases out of every ten, the first indication of our having taken cold is a *sense of stuffing in the nose*. The mucous membrane swells until it completely closes the passage. Most persons have two or three such attacks every year, which they regard as "*mere colds*," and hence rarely think it necessary to do any thing for their removal.

CHRONIC CATARRH.—This affection is the direct consequence of leaving a *simple cold in the head* to cure itself. After a longer or shorter time, the acute symptoms subside, but the patient finds that, although the difficulty of breathing through the nose has passed off, a slight discharge of *yellowish mucus* remains. This is what is called *chronic catarrh*. On looking into the nose, we find the membrane thickened, redder than in health, and often ulcerated. There are several forms of this affection. In the *simplest* form we have merely an accumulation of *yellow straw-colored* mucus in the posterior nares above and behind the palate, which the patient *harks* out from time to time during the day. In the *second*, small sores form in the nose, and the secretion becomes dry, requiring frequent attention to keep it free. In the *third*, a false membrane forms in the nostrils, which the patient removes from time to time. Not unfrequently this membrane is bloody where it has been torn from points of *ulceration* within the nose. In the *fourth*, the secretion is thin, and drops down into the throat whenever the patient throws back the head, lies down, or forcibly *snuffs up* the air. When the ulcerations are considerable, the secretion becomes *purulent*. There is, moreover, often *loss of smell*; and, when the ulceration has eaten through the membrane to the bone, the discharge has an *offensive odor*.

Catarrh occurs at all ages, being found in young

children and in old people. Those suffering from it are much more liable to take cold on slight exposure. It is much worse in the autumn and winter than during the warm months of summer.

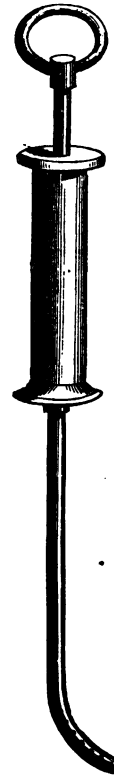
INFLUENZA.—This is a catarrh of the *frontal sinuses*. These are two considerable cavities in the frontal bone, just above the root of the nose. If you place your hand over the forehead, between and slightly above the eyebrows, you will feel the elevation of the bone over these cavities. The frontal sinuses are lined by the mucous membrane, the same as the nose, and connected with the cavity of the nose by a short duct. When a person suffers from catarrh, the disease is liable to extend along this duct to the frontal sinus, producing *headache*, and that distress over the region of the forehead which is known as *Influenza*.

OZÆNA.—This is another form of chronic catarrh of the nose, occurring in an unhealthy constitution. When the health is injured, and the vitality of the system broken down, local diseases always assume an aggravated character. Not unfrequently ozæna arises from a vitiated state of the blood, and is a most serious affection. If it be not arrested, it generally goes on to the destruction of the bones of the nose, and often ends fatally.

#### TREATMENT.

Chronic catarrhal affections of the nose and frontal

sinuses, until a very recent period, had no remedy. They remained, like consumption and asthma, a stain and reproach on the page of medicine. And yet, strange as it may seem, the disease itself, if we except ozeena, is only a simple chronic inflammation of the mucous membrane, and can easily be reached by all the forces of the *Materia Medica* — solids, fluids, and gases. Physicians have failed because they have been satisfied with spirting a little warm water into the nostrils *from a straight syringe*, and the occasional prescription of an *alterative* by the stomach. Some years since, finding it impossible to effect a cure of these affections by such means, I contrived a *curved showering syringe*, by which I was able to make a direct application of any medicated wash to the *whole internal cavity of the nostrils at the same instant*. By daily cleansing the inflamed membrane, and applying to it astringent and alterative washes, I soon learned to regard catarrh as one of our most curable affections.



THE BAG SYRINGE.

For the convenience of patients who are unable to spare the time and expense of having these appli-

cations made from day to day, a bag syringe was contrived by me, which they can use themselves. This consists of a straight silver tube, sealed at the



end, and perforated with fine holes along its sides. This is attached to an elastic bag by an ivory cap. By pressing out the air and inserting the perforated tube in the wash, the syringe fills itself as the pressure is withdrawn. The patient then inserts the silver tube along the floor of the nostrils, and presses the bag smartly, when a strong shower is thrown against the sides of the nasal passages, cleansing

them, and making an application of the medicated wash to the diseased membrane. The washes to be used depend on the condition of the membrane, and require to be adapted to each case, just as we adapt eye-washes to an inflamed eye. In the more aggravated cases of ozæna and chronic influenza, I sometimes found the cure hastened by snuffing up certain vapors, which could not be applied equally well as a wash; and to meet this requirement I contrived a fumigator, to be used with a spirit-lamp. The medicines are placed upon a porcelain dish, and evaporated by heat. The patient holds his head over the

bath, and receives the vapors as they come off into his nostrils. In using it I generally surround the frame by an inverted funnel, made of a sheet of card-board, and so cut as to direct the vapors *toward* the patient. The opening left in the top of the funnel



should be about two inches in diameter. This concentrates the fumes of the medicament, and enables the patient to snuff them up the nostril without bringing the head directly over the instrument.

There is neither pain nor inconvenience in making these applications. Even little children submit to them from day to day without complaint. By this simple, direct, and rational treatment, I have been able to break up a class of troublesome and dangerous affections where every other means had failed. When properly applied, the showering syringe and fumigator will not fail in one case out of a thousand.

Unfortunately, these affections are too generally treated with neglect, and in consequence are soon lost sight of in the disastrous diseases to which they give rise. Catarrh is the first step toward consumption. When allowed to go on, it soon involves the throat in *granulations*, causes the voice to become *husky* in singing and reading aloud, and ends in a *thickening* of the mucous membrane lining the bronchial tubes. After this the deposition of tubercles, ulceration of the lungs, and the development of consumption are the almost inevitable consequences. Even were the danger to the lungs less, catarrh is the most common source of *deafness*, from causing the closure of the Eustachian tubes. Chronic irritations of the mucous membrane always extend themselves *downward*. They are mild and easily cured in the commencement, but become grave and dangerous when neglected. Catarrh is the great feeder of pulmonary irritation, and by no other means can we so effectually guard the lungs from disease as by promptly removing all catarrhal affections.



THE INHALING INSTRUMENT.



## THE INHALING INSTRUMENT.

The inhaling instrument, which holds about a pint of fluid, is composed of a glass globe, or flask, closed by a metallic-capped stopper pierced by two holes, through one of which a glass tube communicating with the *atmospheric air* passes into the *medicated fluid*. To the other is attached an elastic tube, about a foot in length, tipped with a glass mouth-piece, for the passage of the medicated vapor from the instrument.

The manner of using it is as follows: Having half filled the globe with hot, warm, or cold water, as may be thought best adapted to the case by the physician, add the medicine prescribed. Then, by *inhaling* from the mouth-piece, the *atmospheric air* will be drawn down the glass tube, and, passing through the medicated fluid, will *take up the medicines* and convey them *into the lungs* in a state of *vapor*, producing not only a *local action* on the throat, larynx, and bronchial tubes, but also passing into the *blood*, and affecting by their *constitutional action* the entire system

---

## CHAPTER III.

## ON EPIDEMIC INFLUENZA.

CATARRH of the frontal sinuses, though usually caused by cold, nevertheless often occurs as an epidemic, and rages with great violence.

A disease is said to be *epidemic* when it breaks out suddenly in a great number of persons, and spreads rapidly, without any direct communication between those sick and those subsequently attacked.

Epidemics arise from the state of the atmosphere, and hence every living soul in the community is exposed whenever an epidemic prevails. All breathe the same air, consequently the health of all is liable to suffer injury from whatever it contains.

The reason *why* all are not attacked, is that some, being in good health *at the time*, and having a strong vitality *naturally*, resist the noxious influences of the contaminated air, while others, of more feeble constitution, readily fall a sacrifice to it.

Epidemics are not usually *contagious*—that is to say, are not communicated from one person to another. Still, this is not the invariable rule, for many diseases which are contagious occur every now and then as *epidemics*. When a person, sick with any disease, communicates that disease to others, we say it is contagious or infectious, but only those are liable who go near the sick person. The atmosphere

surrounding a person so afflicted becomes contaminated by emanations from his body, and any person breathing it is liable to be similarly attacked. There is an infected circle (sometimes confined to the immediate room, and seldom extending beyond the house) which surrounds all persons sick with infectious diseases, outside of which the free circulation of the air dilutes and scatters the poison, and it loses its power. Epidemics, on the contrary, which, like influenza, are not contagious, are produced by excess or deficiency of some one of the component parts of the air itself; by the presence of some vegetable poison in it, or by some change in the electrical or vital state of the atmosphere. *Cholera* occurs as an epidemic, but you could not contract it by being in the same house or same room with one having it. Therefore, it is not *infectious*. *Typhus fever* is infectious, and may also occur as an epidemic—that is to say, it may be caused by the state of the air, and may spread by infection. *Small-pox* is contagious, but never epidemic.

The “*Blue disease*” of the steamer *Minnesota*, about which we hear so much, was probably generated among the passengers during the voyage by overcrowding and bad ventilation of the ship. This constitutes a limited kind of epidemic, depending on the state of the air of the ship, but not likely to appear upon land or to spread by contagion.

This explanation will enable the reader to under-

stand my meaning when I say that influenza sometimes occurs as an epidemic. It breaks out simultaneously in a great many different places widely separated from each other—on ships at sea and solitary islands in mid-ocean, proving that its cause is wide-spread and purely atmospheric.

Probably the most alarming epidemic visitation of influenza of modern times occurred in 1837, when, according to the report of the Registrar-General of England, *one-third* of the people were attacked. Sir Henry Holland estimates the number even higher, and says that fully *one-half* of the people of London suffered in a greater or less degree.

NOT INFECTIOUS.—There are no facts to lead us to believe that influenza is ever communicated by those affected to those in health.

SYMPTOMS.—The earliest symptoms of an attack are precisely those of a severe *cold in the head*, with the *chilliness*, shivering, and aching in the limbs which usually attend a deeper cold, or the beginning of an *ague*. The lining of the nostrils is at first *hot* and *dry*, but soon pours out a watery fluid which runs from the nose, and is observed to be saltish in taste, and irritating to the skin. *Pain* over the *forehead*, sometimes of a very distressing character, and with a feeling of *rawness* in the region just above the root of the nose, is always present.

If the disease goes on, to these symptoms we have

soon the addition of cough, expectoration of mucus, more or less of a creamy consistence, tightness in the chest, pains between the ribs, aching of the muscles of the chest and in the breast-bone.

The stomach, too, is liable to become involved in the irritation, under which circumstances nausea, vomiting, and tenderness over the pit of the stomach will also occur.

In severe cases we have ringing in the ears, wandering of the mind at night, and sometimes more or less complete stupor, showing that the disease has extended from the frontal sinuses to the *brain*.

The *pain* of influenza is of the *aching* character in the bones, and the *sore* kind in the muscles. The cheek-bones ache, and the muscles of the scalp and neck feel sore to the touch.

The *mind* is usually depressed and anxious, while a feeling of *muscular prostration* pervades the whole system.

The *duration* of mild cases is about four days, when they pass off, leaving a general soreness of the muscles, which continues for ten days or a fortnight.

In the more *severe* cases, the disease is apt to *ε*. in a dangerous *bronchitis*, *pleurisy*, or pneumonia (inflammation of the lungs). When death follows, it results from one or other of these diseases being set up, or from the occurrence of fatal coma, caused by the extension of the disease to the *brain*.

The *consequences* to be apprehended from influenza, after the acute disease has disappeared, are that it will leave behind it a *chronic catarrh* of the nose, or a seated *chronic bronchitis* of the lungs, or bring into activity and hasten to a fatal issue latent *tubercular consumption*, which, but for the attack, might have remained dormant for years.

#### TREATMENT.

As epidemic influenza is a disease of debility, and the tendency is to prostration of the vital powers, *bleeding and emetics*, which constituted the old treatment, only increased the disease and added to the danger. So general was this treatment at one time, and so fatal the results which followed it, that the Czar of Russia—more enlightened than the doctors—put a stop to it throughout his dominions by an imperial ukase. In England, France, Spain, and Germany, the disease was, at the time, frightfully fatal, and it is now generally admitted by the profession, that it was *made* so by these depletory measures. The proper course to pursue is as follows :—

Keep the patient in bed, and restore by external applications the warmth of the surface of the body. Heated blankets, bottles of hot water, and friction are the means to be employed for this purpose.

Next, see that the bowels are freely opened. For

this purpose, nothing answers better than a teaspoonful of "Husband's" magnesia, in milk, followed in four hours by a Seidlitz powder.

For the *pains*, a mixture containing colchicum, carbonate of potash, ginger, and infusion of columbo, should be given every six hours, and an embrocation of spirits of camphor, tincture of arnica, chloroform, and olive oil, applied with a good deal of friction over the painful parts.

Quinine must be given from the outset, but a single dose of five or six grains once a day is sufficient, and far preferable to small doses more frequently repeated.

Inhalations of hot vapor from an infusion containing conium, Indian hemp, and stramonium, should be used every four hours, and continued for fifteen minutes at each time.

The diet should be *gruel* and *beef-tea*, well seasoned with pepper.

These means, faithfully employed, will arrest the disease within twenty-four or thirty-six hours, and save the patient from the danger of the serious complications already mentioned. In the treatment of the disease, whatever it is necessary to do should be done thoroughly and promptly. There should be no half measures, nor dilly-dallying. Most of the suffering of chronic maladies, and half the fatality of acute ones, spring directly from the neglect of prompt and proper treatment at *the outset*.

## CHAPTER IV.

## ON POLYPUS OF THE NOSE.

THE nose is liable to morbid growths, which form inside the passages, and to a greater or lesser extent close them up. Tumors of this character are of two kinds—one being very common, and the other comparatively rare. The most common kind is soft, and not unlike an OYSTER. It readily breaks down under the pressure of the forceps, and is brought away in pieces, which look like bits of half-transparent JELLY. The soft polypus is small, pear-shaped, and has a body much larger than the neck, by which it is attached to the mucous membrane of the nose.

It is common to find half a dozen of these small tumors, each growing from a different root, in the same nostril. They may exist in one nostril only, or in both, at the same time. When a person can only breathe through the mouth, that is a sign that *both* nostrils are filled up. Under these circumstances, he speaks like one having *cold in the head*, always sleeps with his *mouth open* at night, and awakens in the morning with a *dry* tongue.

There is generally more or less mucous discharge from the nose, and on *damp days* the nostrils will be found to be more oppressed than in *dry weather*. The discharge, in damp raw weather, becomes *clear*



*and watery.* In many persons there is a more or less frequent *dripping* of clear water from the nose, requiring the almost constant use of the handkerchief.

One of the consequences to the health, resulting from the union of *catarrh* and *polypus* of the nose, is the generation of a very bad form of *asthma*, which is extremely liable to end in dilatation of the *air-tubes*, and permanent injury to the *air-cells* of the lungs. For a considerable time the asthmatic *fits* are merely *spasmodic*, occurring on *damp* days, and after fresh attacks of cold ; but gradually they become much more frequent, while in the intervals between them the patient is never entirely free from a *wheeziness*, caused by frothy mucus. By slow, but sure gradations, the disease passes into that condition known as *Emphysema*.

The *fibrinous* kind of polypus is fortunately more rare, but when it does occur, it is even more serious in its effects. The nose often becomes greatly enlarged laterally caused by the growth of the tumors internally, pressing upon its walls ; even the bones are sometimes separated to such a degree, as to occasion great disfigurement.

#### TREATMENT.

In all cases, removal of these growths is *the only remedy*. The plan pursued is to take hold of the neck

of the tumor, as near to the root as possible, with a small pair of forceps, and gently detach it. The forceps used should have fine, closely-fitting teeth. It is seldom that the nostril can be cleared at one sitting, and often the effective removal of the polypus takes several weeks.

There is, as a rule, *very little pain* to endure, but frequently considerable patience required on the part of the patient. When the tumors are numerous and very tender, they require to be picked out piecemeal, and with great delicacy and care, to avoid wounding the lining of the nose. After the removal is completed, the *catarrh syringe* should be used daily for some weeks, to subdue the disease of the mucous membrane which always exists. Indeed, the *gelatinous* kind of polypus is but one of the many consequences of *neglected chronic catarrh*.

## PART SECOND.

---

### ON AFFECTIONS OF THE THROAT.

---

#### CHAPTER I.

HAVING pointed out the nature of colds, and described the symptoms and proper treatment of catarrh, ozæna, influenza, and polypus of the nasal passages, we will now pass to the consideration of affections of the *throat*.

“*Sore throat*” is the popular term used in speaking of throat diseases; but as there are several distinct forms of sore throat, differing widely from each other in their nature and treatment, it is necessary to discriminate between them.

The *throat* is that cavity which is seen above and behind the root of the tongue, on directing a person to open wide the mouth. It comprises the whole space from the entrance to the nostrils behind the curtain of the palate, down to the entrance into the *windpipe* and *gullet*. The several parts liable to disease are—*first*, the *mucous membrane* lining the throat; *second*, the *mucous follicles*, or little glands,

which, in health, secrete the lubricating *mucus*; *third*, the *uvula*, or pendulous tongue which hangs down from the curtain of the palate; and, *fourth*, the *tonsils*.

I shall now proceed to describe the diseases to which these several parts are subject.

---

## CHAPTER II.

### COMMON SORE THROAT.

THE simplest form of throat disease is *inflammation* of the mucous membrane. This is one of the consequences of a recent cold, and probably occurs to most persons in a mild degree several times every year.

It is prevalent in the autumn, and early spring; *i. e.*, *cold and damp weather*. The *symptoms* are a feeling of *roughness* in the throat, with slight *pain* and *swelling*. On examination, the throat looks *red* and *angry*, and the tongue is slightly coated with *white fur*. Within a few days small *whitish spots*, which look like little *ulcers*, form on the throat and about the root of the tongue. If the attack be mild, the *aphthous* points disappear at the end of three or four days, but when more severe, they leave behind them superficial *ulcers*, which gradually heal.

## TREATMENT.

Wash the throat with a solution of sulphate of zinc, five grains to the ounce of distilled water, or with one part of honey of borax, one of gum-arabic, and ten parts of water; these washes should be applied two or three times a day. At the same time the patient should inhale the vapor of very hot water, with the addition of a few drops of vinegar, repeating it every four or five hours, and continuing each inhalation for about ten or fifteen minutes. This course will be found amply sufficient in all ordinary cases to arrest the attack, and save the membranes of the throat from injury. The consequences likely to result from a simple sore throat, are various. If the acute inflammation be not entirely removed, it is liable to degenerate into a chronic form, and gradually develop what is known as *granular* disease—it may end in an abscess of the tonsil glands, or uvula, or cause chronic enlargement of the former, and elongation of the latter.

---

## CHAPTER III.

## MEMBRANEOUS SORE THROAT.

THIS differs from the simple form just described chiefly in the fact that the mucous lining and tonsils become covered by an exudation, or *false membrane*. The earliest symptoms are a *stiffness in the neck*, combined with *pain, heat, and dryness* in the throat. The throat at first looks intensely *red*, with here and there points of a *darker red*. By the next day, and often within a few hours, numerous *white* points show themselves, and rapidly increase in size, until they cover part or the whole surface of the throat, extending *upward*, behind the curtain of the palate, into the nostrils, invading even the Eustachian tubes leading to the internal ear, and the frontal sinuses, or *downward* into the larynx, trachea, and bronchial tubes.

There are two varieties of this disease, distinguished by the type they assume. The first is called *acute*, because of the decided inflammatory character of the attack; and the second *malignant*, because of the tendency to nervous prostration, which characterizes it from the outset. Both are very common, occurring at all seasons, and in persons of all ages and stations in life. At times they seem to be contagious in a limited degree, while at others they rage as fatal *epidemics*, sweeping off thousands in a single season.

What is called the *acute* form, is neither more nor less than an aggravated variety of *common sore throat*; the aphthous points of the former being replaced by more extensive exudation, having an offensive odor. The symptoms only differ in *intensity*, not in *kind*. The color of the patches of exudation is a *yellowish-white* inclining to *gray*, and they are usually confined to the throat alone. The palate and tonsils are swollen, and may even become the seat of an abscess, as in *quinsy*. In very aggravated cases, the disease invades the larynx, and may cause sudden death from suffocation. The symptoms indicating this change (which was undoubtedly the cause of the untimely death of Sir Frederick Bruce, the British Minister, a few days ago), are a hoarse, indistinct articulation, pain over the upper part of the windpipe, harsh, dry cough, and great difficulty of breathing. There is also a peculiarity in the manner of breathing, the inspirations being *long* and *difficult*, and the expirations *short* and *blowing*.

## CHAPTER IV.

## —DIPHTHERIA.

THIS disease begins in precisely the same way as ordinary sore throat, except that the pulse is *feeble* instead of strong, and the skin *cooler* than natural, instead of being *hot*. There is, moreover, a feeling of general prostration from the outset. Difficulty in *swallowing* is manifested early, and the effort is sometimes attended by the ejection, particularly of liquids, through the nostrils. The whole throat, and in many cases the nostrils, larynx, and wind-pipe, are covered with a dark *grayish* or *brownish* exudation, giving the appearance of extensive ulceration. The intolerable fetor, and occasional ejection of portions of the exudation, looking like decayed flesh sloughed off, lead persons to suppose the whole throat involved in destructive ulceration; but *post-mortem* observation has abundantly proved that there is very little *real ulceration* in this disease. The whole danger lies in the fact, that the false membrane obstructs the air-passages, and threatens *suffocation*.

Nothing is known regarding the cause which produces this disease, further than that it is more common in damp, cold weather, than at other seasons. What would prove a *simple sore throat* to one person, might with another assume the form of



the *acute membranous* disease, and with a third take the form of malignant *diphtheria*. The occurrence of these diseases as *epidemics* is undoubtedly due to atmospheric causes—probably a deficiency of *ozone* in the air.

#### TREATMENT OF DIPHTHERIA.

The treatment of the *acute* or *membranous* form of throat disease does not differ from that of ordinary sore throat, unless it assumes a very aggravated character, when it becomes precisely that of diphtheria. This may be divided into—

1st. *Local* treatment, or that necessary for the relief of the throat itself; and,

2d. *Constitutional*, or that necessary to purify the blood and sustain the vital powers.

The throat washes which act most beneficially are those containing chlorine in combination with soda, potassa, or zinc. Chlorine arrests the formation of the false membrane. A cleansing wash of chlorinated soda is the best, and should be used as a *gargle*, or applied with a *showering syringe* every hour. The patches of false membrane are to be penciled with chloride of zinc, of the strength of one dram to the ounce of water. This I find superior to any other known substance. Nitrate of silver is very generally used for this purpose (of the strength of from half a dram to two scruples to

the ounce of water) by American practitioners, and certainly is preferable to hydrochloric acid, so generally employed in England and France. I do not use the acid at all, and seldom the nitrate of silver, because I find the chloride of zinc less painful and more efficacious. It may, however, be well to state, that the manner of using the nitrate of silver and the acid is to saturate a bit of fine sponge, attached to the end of a piece of whalebone, and press it against the diseased part.

In addition to the chlorinated soda gargle and application of chloride of zinc, great relief is derived from hot inhalations. An infusion of chamomile flowers, with the addition of half a dram of tincture of conium, and a dram of tincture of Indian hemp, using the inhaling instrument already described, are the proper proportions for the inhaling fluid. The zinc applications generally require to be repeated at the end of *six* hours, and the inhalations used every *four* hours, until the disease is arrested. The ordinary length of an inhalation is from five to ten minutes. Fresh water and medicines are to be used at each time.

The next and most important point is to attack the constitutional cause of the disease. Few persons can have failed to observe the great difference which exists in colds and sore throats at particular seasons. At one time they are simple and easily removed, while at another they assume an aggravated char-

acter, and are far more difficult to get rid of; while here and there, without any apparent reason to account for it, we hear of persons suddenly dying of what seems a very trifling affection. The difference can only arise from a difference in the state of the atmosphere. The low type of diphtheritic disease indicates that the blood is in an imperfect condition. This can only be caused by a deficiency of vital oxygen in the air we breathe, or by the addition of some poison to it. Until we have discovered the presence of such a poison, by chemical analysis, we have no right to assume its existence, while analogy justifies us in assuming that defective oxygenation of the blood exists whenever the type of disease is unusually low.

Acting on this idea, I was early led to administer inhalations of oxygen in diphtheria, and the results have been truly surprising. From that day to the present I have not lost a patient from diphtheritic sore throat out of many hundred cases treated. The correctness of this practice receives strong confirmation outside of its mere success from the known efficacy of *chlorate of potash*, which has been prescribed as a remedy in from five to twenty grain doses (according to the age), repeated every two hours. Chlorate of potash contains a very large volume of oxygen in loose combination, and there can be no doubt that much of the benefit resulting from its use arises from its giving up oxygen to the

blood. As doctors do not *always* agree, however, *even in their estimate of facts*, it is not impossible that a dozen different explanations will be offered on this very point. But, be this as it may, it is at least satisfactory to know that, account for it as we choose, the oxygen treatment, properly carried out, proves specific in diphtheritic disease.

---

## CHAPTER V.

### GRANULAR THROAT.

PROBABLY the most common throat affection is that known as *granular sore throat*. It is called *granular* because little points or granulations are seen scattered over the surface of the mucous membrane. These little *red* elevations are caused by the enlargement and disease of the mucous follicles. Most persons are liable to frequent slight attacks of simple sore throat from taking cold. These occur, perhaps, two or three times a year, but appear to pass off without injury to health or interruption of business. After a time, however, the patient becomes conscious of a vexatious *titillation*, producing a desire to *clear the throat* several times in the course of the day. He may not notice this himself, but it is, nevertheless, observed by his friends. Some months later this

disposition is found to have increased, and to be attended with an occasional desire to *swallow*; the patient (to use his own phrase) feeling *something sticking in the throat*. On looking into the throat, under these circumstances, the granulations before mentioned will be found studding the membrane, and causing it to appear rough and uneven. Sometimes they exist in irregular-shaped patches, but most commonly are regular in shape, and each one distinct. When allowed to progress, the mucous follicles within the *larynx* soon become affected, and then we have added to the other symptoms a *huskiness of the voice* in speaking or reading aloud, with frequent efforts to clear the windpipe, by which a thick, sticky, bluish-colored mucus is forced off with considerable difficulty.

#### TREATMENT.

In the treatment of granular sore throat the same course should be pursued as that prescribed for catarrh. Granular sore throat is purely a *local* affection, and can only be cured by a *local treatment*. I usually use the catarrh syringe once daily, and the small fumigating bath morning and evening. When the larynx is also affected, the inhaling instrument and warm astringent inhalations should be used morning and evening, and the fumigations only once a day. These means can all be used by the

patient at his own house, when it is inconvenient for him to attend upon the physician. The old practice of bleeding and dosing in this disease only weakens the system and renders the malady more inveterate. In defiance of such means, it proceeds slowly but surely towards the lungs, and the unfortunate patient soon learns how short is the step from a *sore throat* to confirmed *consumption*.

Some years ago it became fashionable to treat this affection by applying to the diseased parts a strong solution of nitrate of silver, or *lunar caustic*, with a probang and sponge. These applications occasion great suffering to the patient, and burn and disorganize the mucous membrane, without accomplishing a tenth part of the good attained by milder means.

There is one rule which experience has taught me to observe in the treatment of the inflamed mucous membrane, and that is, never to apply any remedy ~~so~~ strong as to produce *irritation*. All washes should *soothe*, and be followed by a sense of comfort. Slight smarting attends the use of most astringents, but decided *pain* is a sure proof that the wash is too strong, and ought to be reduced. A strong eye-wash increases the inflammation it is meant to cure, and so also do strong caustics applied to the throat destroy the integrity of the mucous membrane and aggravate the local disease.

## CHAPTER X.

## THROAT CONSUMPTION.

Few persons probably are aware that there exists such a disease as *Throat Consumption*. What is so called is only a more decided form of *granular* disease, just as *diphtheria* is a more aggravated form of *simple sore throat*. Dr. Cotton, one of the physicians of the London Consumption Hospital, speaking of the affection, says: "The mucous membrane [of the throat] presents at first a number of dark red patches or streaks. . . . . A yellowish tenacious mucus soon appears upon its surface; the tonsils become enlarged, and the uvula is elongated. If the mucous follicles of the tonsils be examined, they are often found to contain a yellowish white (cheesy) substance, apparently of a scrofulous nature. . . .

. . . In many instances the disease remains limited to the throat, but in those cases in which it extends to the *larynx*, it sometimes altogether leaves the throat." (p. 154-5.)

The *throat* appears to get well; but, unfortunately for the patient, the disease has only changed its seat to a more important part, lower down, where it threatens to produce disorganization of the vocal chords, and consumption of the lungs.

The late Dr. Horace Green, in his work on diseases of the throat, says:—

YSA9811 3MA11

"That peculiar affection of the throat, which, under the appellations of 'bronchitis,' 'chronic laryngitis,' 'clergymen's sore throat,' &c., has occurred, especially during the last ten or fifteen years, so frequently among public speakers and others, consists . . . in a diseased condition of the glandular follicles of the mucous membrane of the throat, larynx, and trachea.

"The structural changes to which the mucous follicles of the throat and air-passages are liable, are *inflammation*, *induration*, or in a deposition of *tuberculous* matter in the follicles themselves. . . . It may accompany, or be consecutive to, other affections of the air-passages, and so exist with *laryngitis*, *bronchitis*, or with *consumption*." (p. 43.)

"As this disease, in its advanced stage, seems to be *constantly attended* with a secretion, either within the mucous follicles, of a peculiar concrete substance, resembling *tubercle*; or, with an infiltration of this tuberculous matter in the sub-mucous cellular tissues, it may with propriety be *denominated tubercular sore throat*." (p. 49.)

It generally shows itself before there is any evidence of pulmonary disease, but gradually develops, and finally ends in, consumption of the lungs. Great difference of opinion exists among physicians as to whether this particular affection of the throat is the *cause* of the lung disease which follows it, or merely a *consequence* of a bad state of the blood, from which tubercles arise. Before tubercles are formed, the blood becomes impure; but we have no facts to justify us in believing that it can become impure without some antecedent cause which impairs the *purity* of the air, or the freedom of its res-



piration. Whatever will do this will render the blood impure, and may produce consumption. As all affections of the nose, throat, and air-passages do impair the freedom of respiration, they are to be regarded as direct causes of consumption of the lungs. No person can afford to risk health and life on a doubt which is utterly without practical importance. If we regard the state of the throat merely as an evidence of that state of the blood in which tubercles take their rise, the peril to the patient of neglecting it is not lessened. If, on the other hand, we believe it to be the earliest visible manifestation of disease actually set up in the lungs, the danger is increased. Whenever I see granulations looking like *very small flattened red currants* on the back of the throat, the thought of consumption always occurs to me, and I carefully "*sound*" the lungs to see whether tubercles can be detected.

Whenever little cheesy particles are expectorated, they come either from the *throat* or *lungs*, and threaten us with one of the most fatal diseases which afflict mankind.

#### TREATMENT.

This is precisely the same as prescribed for ordinary *granular sore throat*, of which disease this is only a worse form. As we find the disease in the throat, we must attack it there by the showering syringe.

If it has gone to the *larynx*, we must follow it by means of the *inhaling instrument*. At the same time we must administer *oxygen* to purify the blood, either by means of the *oxygen pastille*, or by other inhalations which liberate oxygen. The washes to be employed depend on the state of the parts at the time. No patient should attempt self-treatment. When he has obtained the opinion of a competent physician, he can intelligently apply the remedies prescribed, and carry out the instructions given. Each case has its peculiarities, which must be taken into account in determining the strength of the remedies to be used. The *kind* of remedies and the instruments to be employed are sufficiently indicated to enable any well-informed physician to apply them.

---

## CHAPTER XI.

### THE UVULA AND TONSILS.

ELONGATION and thickening of the little pendulous part called the *uvula* is very common. It is often so greatly increased in length that it hangs down upon the root of the tongue, and keeps up a constant *irritation* and *cough*. It may also be increased

in thickness and *indurated*, although such is not usually the case. Elongation is produced by repeated attacks of cold, and is often an attendant on *catarrh* and *granular sore throat*. The amount of injury and annoyance this condition of the uvula will sometimes occasion, is truly surprising. I have seen a strong healthy man get an obstinate harassing cough, and lose twenty pounds in weight in the course of a few months, from no other cause. The point of the uvula sometimes intrudes itself into the entrance of the windpipe, causing great difficulty in breathing, and loss of tone and power in the voice, with a sense of suffocation. It occasions in many persons attacks of nightmare. When neglected, it commonly ends in permanent injury to the lungs, and often develops tubercular consumption.

Dr. Stokes, of Dublin, says:—

“I have seen cases presenting all the usual symptoms of consumption, such as cough, puriform and bloody expectoration, hectic emaciation and quick pulse, which were produced *by relaxation and elongation of the uvula*, and in the treatment of which *ordinary* means either altogether failed or were only partially successful.”

The treatment is very simple. By throwing a strong astringent wash into the fauces, and behind the palate, by the showering syringe already described, it will, if recent, gradually shrink up and return to its natural size. It is sometimes overcome by touching it with a camel's-hair pencil, dipped in

a solution of iodine, or with powdered alum and African pepper. But the benefit from these means is only temporary, for if the inflamed condition of the fauces be allowed to remain, it will soon elongate again. When it has become *indurated*, the only effectual means is to clip off the point of the uvula with a pair of scissors. This simple operation occasions the patient little suffering or inconvenience, and is always effectual. Some people have a very foolish objection to this, from a fear that it may "*affect the voice*." My own experience is, that it is often the only means by which the voice can be *saved*. When allowed to remain, it keeps up an irritation in the fauces, which rapidly extends to the larynx, and generally ends in more or less complete loss of voice. I am particular on this point, for many persons, from the want of knowing better, actually bring upon themselves, by delay, the very misfortune they deplore.

*Enlarged tonsils* result from quinsy, and often lay the foundation of consumption, by interfering with the freedom of respiration. This affection is very common in children. On looking into the throat, the tonsils are seen projecting from each side like two balls of flesh. When they are very large, they cause great oppression, and occasion a *wheezing* kind of breathing during sleep. The treatment is very similar to that pointed out for elongated uvula. In recent cases, the tonsil glands can generally be

reduced by local applications, applied to them with the brush and syringe. And this should always be the first effort of the physician. When it fails, they are easily removed by the *tonsil-otome*, a very perfect contrivance, consisting of a *ring blade*, guarded by a circle of steel, which just fits around the tonsil. By pressing upon the handle, the tonsil is removed without any cutting surface being exposed to the surrounding parts. A child might close its mouth upon the instrument without the least possibility of injuring itself.

The manner of their removal, however, is of very secondary consequence. The point of importance to be remembered is, that enlarged tonsils cannot be allowed to remain, without endangering the health of the lungs. They must be got rid of by some means, and *any* means which accomplishes that, will relieve the breathing and save the lungs.

---

## CHAPTER XII.

### SUMMARY.

SOME difference of opinion exists among medical men as to the extent to which diseases of the *nose* and *throat* can be regarded as actual *causes* of consump-

tion. *All* admit that they seriously impair the function of the lungs and injure the health. Some contend that they only serve to rouse up and bring into fatal activity a latent predisposition to tubercles which exist, and that, if such does not exist, consumption does not follow. Others regard *catarrh* as in itself an evidence of a strong predisposition to scrofula and consumption, if not of the actual existence of tubercles in the lungs, and hence believe all who are so affected to be marked out as victims of consumption at a later period. I do not regard either of these opinions as well founded. It is surely absurd to contend that there must be antecedent predisposition, when we know that consumption is readily created in any animal that breathes, by simply shutting it up in impure air. We know that cows shut up in stalls, and all caged animals, become tuberculous and die of consumption. Have they a *predisposition* to this disease? If not, then they *acquire* it, and *man* acquires it in precisely the same way. Whatever deprives the lungs of a full supply of pure air, will produce consumption *ab initio*. Then, again, it is clearly incorrect to set down every person having a *catarrhal* disease as *scrofulous* and *predisposed*, since we know that a simple cold, neglected, readily produces it, and that once it is cured, the patient goes on without any further manifestation of consumption.

However, it is well for the public to know all the various opinions entertained.

Professor Gross says :—

“ *Ulcers in the nose* of a strumous nature are sufficiently common, and from their rebellious character and fetid discharges are often a source of great annoyance both to the patient and practitioner.” (page 415.) . . . “ *Thickening of the mucous membrane of the nose* is observed chiefly in children and young persons of a weakly *scrofulous* constitution.” (page 416.) “ *Chronic enlargement of the tonsils* is exceedingly common, and is met with *almost exclusively in young scrofulous subjects*. The *uvula*, from debility, inflammation, and other causes, is liable to *chronic enlargement, especially elongation*. . . . It may occur at any period in life. . . . It is generally the result of repeated *attacks of cold*. . . . The more common effects are obstinate protracted cough, with frequent desire to *clear the throat*. . . . When the affection continues long, *tubercles* sometimes form in the lungs, and the patient ultimately *dies with all the symptoms of confirmed consumption*.” (page 576.)

Sir Thomas Watson observes :—

“ *Chronic catarrh* is often a sequel of acute bronchitis; and it is a form of complaint that is full of interest on this account, if on no other, that it has so often been mistaken, and is so liable to be mistaken still, for tubercular consumption, of which, indeed, it is very frequently the companion.”

Dr. Cotton, physician to the Brompton Consumption Hospital, remarks :—

“ *The frequency with which consumptive persons attribute the commencement of their disease to an attack of influenza, or a severe cold, at once points to the influence of these disorders in the development of tubercle [consumption.]*” (page 92.)

And again :—

“*Catarrh* also, when severe, and accompanied with constitutional disturbance and *bronchial* irritation, appears in many instances to bring into action consumption, hitherto “dormant.” (page 93.)

Laennec says :—

“It is no doubt true, that in most consumptive cases the “first symptoms are those of pulmonary catarrh” [bronchitis]. (page 299.)

“It has frequently appeared quite clear to me, from carefully comparing the history of my patients with the appearances on dissection, that the greater number of those first “attacks are mistaken for colds.” (page 334.)

Professor Hughes Bennett, in 1859, published a work on the lungs, from which I extract the following. He tells us he has

“*Pointed out what he believes no writer has hitherto noticed, viz., the importance in some cases of examining and treating locally diseases of the nasal passages.*” (page 7.) Again: “I have seen numerous instances of chronic coughs . . . which have recovered by discovering that the disease originated in the *nasal passages*, and by directing a treatment to them. (page 217.) “Lastly, in the following case of incipient consumption, I was enabled, by *treating the nose*, to produce recovery, when there were no indications of lesion in the “nasal passages.” (page 219.) . . . “Lesions in the throat, larynx, bronchi, and nasal passages ought to occupy the serious attention of the practitioner in all cases of pulmonary disease. To treat these local affections not only affords the patients relief, but tends in a marked manner to induce arrestment of the pulmonary disease.” (p. 221.)

Dr. Ancell, in his splendid work on Tuberculosis, says :—



"In tubercular subjects, the *membrane lining the nose* is extremely liable to copious and acrid secretions. It is also extremely liable to chronic inflammation and muco-purulent discharges. . . . Many cases of *ozæna* and diseases of the antrum and bones take their origin in *tubercular deposits*."

Dr. Edward Smith, one of the physicians to the Hospital for Consumption, London, speaking of the condition of the throat which precedes the development of consumption, and characterizes the early stage of that disease, says:—

"The condition is now known as *follicular disease* [granular sore throat], in which the simple glands, which are abundant on the posterior wall of the throat, become enlarged and red, and present the appearance of *small flattened red cur-rants*. In this condition there is not unusually some *elongation of the uvula*. Slight redness of the mucous membrane, with enlarged vessels upon the back and sides, and some *enlargement of the tonsils*." (page 126.) "The chief sources of secretion in the early stages of consumption is the *throat*. The *tonsils* emit a secretion of a glairy nature." (page 137.)

From these opinions it will be seen that the highest medical authorities are agreed that *chronic affections of the nose, throat, and bronchial tubes* give us direct warning of the *early stage* of consumption; that in *many* cases they arise from a *scrofulous* condition of the blood, and indicate that the patient is actually in consumption; and lastly, that where any latent predisposition to consumption exists, they have a powerful tendency to rouse it up and bring it into activity. The reader cannot, therefore, have any doubt regarding the great importance of getting rid,

as speedily as possible, of all affections of the nose, throat, and bronchial tubes. To disregard them is to disregard the plainest warning of danger to the health of the lungs, and to invite the fatal inroads of the most deadly scourge known to the human race; whereas a little judicious treatment employed in time effectually wards off this source of dangers by uprooting the catarrhal and granular disease, and restoring the affected parts to their normal condition.

PART THIRD.

---

AFFECTIONS OF THE LARYNX AND TRACHEA.

---

## CHAPTER I.

THE windpipe is that tube through which the *air* is carried to the lungs. It extends from the throat to the cavity of the chest, where it divides into *two* branches, which immediately enter the lungs, where they divide and subdivide into innumerable smaller branches, which run through the *substance* of the lungs in every direction, and form, in fact, a part of the lungs. These branches of the windpipe are the "*bronchial tubes*," and the little cavities in which they terminate are called the "*air-cells*."

By the term "*windpipe*," physicians mean that part lying between the *lungs* and the *throat*; and by "*bronchial tubes*," the branches which lie within the lungs. It is important that you should remember this, for you will not then make the common mistake of supposing *bronchitis* a *throat* disease, but will know that it must of necessity be a disease of

the *lungs*, since there are no bronchial tubes anywhere else.

The windpipe is again divided into *two* parts. The upper half we call the "*Larynx*," and the lower one the "*Trachea*."

The larynx lies immediately under that remarkable prominence on the front of the neck called the "*Apple of Adam*."

It is lined by a *mucous membrane*, and furnished with *vibrative chords*, which are under the control of the will. By the harmonious action of these chords the larynx becomes a perfect musical instrument, and the vocalist and speaker are able to produce that infinity of sound which conduces so much to human enjoyment. The larynx is an *air* passage into which neither food nor drink, *solid* or *fluid*, ever enters, except by *violence*. Even a few drops of the blandest liquid, as tea or water, when accidentally drawn into the larynx, produces irritation for hours afterwards. This is what happens when any thing gets into the "*wrong passage*." I mention these facts to show the danger of that practice by which *strong caustics* are injected into this cavity, and a whalebone and sponge charged with burning nitrate of silver forced into it, regardless of the melancholy and even *fatal* results which have in some instances followed. This violent and unnatural treatment, although of comparatively recent origin, has already existed too long, and cannot be aban-

doned too soon. *Recent* ulcers of the throat are sometimes *temporarily* benefited by caustics, but *simple chronic* inflammation of the larynx *never*.

The entrance into the larynx is closed by a little valve, the "*epiglottis*," which rises up from the root of the tongue. On the approach of food or drink, this little sentinel closes down upon the opening, and allows the nutriment to pass into the *gullet*, or tube leading to the stomach.

---

## CHAPTER II.

### CHRONIC LARYNGITIS.

THIS, like affections of the throat and nose, usually begins with a severe *cold*, and is always attended by *hoarseness*. It is more frequently a mere extension of *catarrh* or *sore throat* than an original disease. There may be *pain*, but it is more common to find only a sense of *tickling* which provokes cough. Many complain of a sensation as of "*something sticking*" there, to get rid of which they keep up a *rasping* effort to clear the windpipe. The voice is always affected, being *rough* in the early stage, but more *feeble* after the disease is fully established. The effort to *clear the voice* occupies a considerable part of every conversation with a friend. In chronic

laryngitis the mucous membrane is *inflamed*, and becomes after a time *thickened*, and often *ulcers* form between and above the vocal chords.

The *causes* which produce laryngitis are various. It arises in clergymen and public speakers from a too violent use of the voice. The vocal chords become exhausted, and lose their tone from straining and over-use. Dust and all irritating matters in the air are liable to be drawn into the windpipe and produce irritation. It is more often a mere sequel to *sore throat*, the inflammation extending down into the *larynx*, by reason of the continuity of the mucous membrane. The sudden death of Sir Frederick Bruce, at Boston, appears to have been from an *acute* attack of Laryngitis, caused by a "*sore throat*."

From whatever cause it arises, laryngitis is always a serious malady. The *chronic* form threatens the complete destruction of the voice, and rarely ends until it has involved the lungs in disease. Every *slight cold*, every change in the *weather*, every flight of *dust*, feeds the irritation and increases the inveteracy of its hold.

#### TREATMENT.

In all cases it must be treated by the direct application of astringents and alteratives to the affected part. Like *catarrh* and *granular sore throat*, it is a local affection, and can only be cured by local treat-

ment. There is no use in torturing the poor unoffending stomach for an inflamed condition of the vocal chords of the larynx. Change of air is equally unavailing, for there is no climate without dust and drafts of air sufficient to feed and keep the disease alive. The inhaling instrument, charged with such sedative, alterative, and astringent medicines as may be indicated by the stage of the disease, must be used morning and evening, and every night before going to bed, the larynx fumigated with warm sedative vapors. Conium, Indian hemp, Digitalis, Belladonna, and Hyoscyamus are the sedatives on which I place the greatest reliance, but they require to be specially adapted to each case, not only in the dose, but also in the form of combination. No fixed rule can be laid down by which the patient may be able to treat himself without the advice of a physician. The danger caused by the disease is too urgent to warrant any attempts of that kind. Liquor potassæ, added in from five to fifteen drops to the inhaling fluid at the moment of inhaling, is sometimes very soothing, and acts as a valuable anti-spasmodic and alterative. In the more *chronic* forms, a watery solution of *iodine* and a few drops of *chloric ether* may be advantageously combined with the sedatives.

The *laryngoscope*, an instrument by which we are enabled to examine the larynx and see the actual condition of the parts, is sometimes a most valuable aid to diagnosis, but unfortunately it is often made

an excuse by the harpies of *medicine* for tampering with strong caustic applications, a practice which cannot be too strongly deprecated.

Treated by *warm medicated vapors*, there are few cases of *simple* chronic laryngitis which are not promptly curable.

---

### CHAPTER III.

#### LARYNGEAL CONSUMPTION.

THIS will, no doubt, be regarded by many as a new disease, and yet it is painfully common, and one of the most terribly distressing affections the physician is ever called upon to treat. The late Dr. Swett, in his Lectures on Diseases of the Chest, used to say to his class: "*When you see a case of chronic laryngitis, the idea that tubercles exist in the lungs should at once suggest itself to your mind. Even if evidences of their existence are not clear, their presence may be suspected, or, at least, feared.*" (p. 165.) And Sir James Clark remarks: "Ulcerations of the larynx are a very frequent concomitant of tubercular disease of the lungs. . . . Occasionally symptoms indicative of its existence make their appearance before the signs of the lung affection are very evident." (p. 521.)

My own experience does not bear out the correct-



ness of Dr. Swett's remarks in every respect. On the contrary, I have found chronic laryngitis without any thing to warrant the suspicion that tubercles exist in the lungs very common, and I am satisfied that when they do develop themselves subsequently, they are more frequently a *consequence* than a *cause*. When tubercles exist in the larynx, or in the valve which closes the entrance into it, they always end in *ulceration*, after which the patient cannot swallow *fluids* without the danger of some portion running into the windpipe. When such is the case, violent cough follows, and the fluid is ejected through the nose. A sense of impending *suffocation* is always present; severe *pain* in the region of the larynx attends every attempt at *swallowing*, and the *voice* is reduced to a *hoarse whisper*. On examining the larynx with the *laryngoscope*, we often find the vocal chords ulcerated and the epiglottis half eaten away.

If the lungs are also affected, which frequently is the case, the danger to the patient is correspondingly increased. Every thing depends on the extent to which the disease has gone before the adoption of proper treatment. Many of these cases apply too late for cure. The treatment is precisely the same as that of simple chronic laryngitis, with the addition of *oxygen* inhalations to purify the blood, and strong *tannin* applications to the ulcers. They will often heal, under this treatment, when cure seemed

impossible. It is, at least, the best which the healing art has to offer the poor sufferer in his extremity, and, as such, I have no hesitancy in pressing it upon the attention of my professional brethren.

---

## CHAPTER IV.

### CROUP.

THIS alarming and fatal disease is very common, particularly among children, throughout all cold countries. A child in perfect general health is suddenly attacked with a *husky crowing cough*. It comes on without warning—often in the middle of the night, or early morning—in children who retired to bed apparently in their usual health.

The *ages* most subject to croup are above *one* year and under *five*, though it may occur at any age. The *earliest* symptoms are precisely those of an ordinary cold. The *husky crowing sound* produced by the cough does not arise from any thing peculiar in the disease itself, but solely from the fact of the cold having settled on the *larynx*. The effects of a cold in the larynx are to *congest* the *vocal chords*, and cause the mucous membrane to *swell* up to such a degree as to alter the *tone* of the *voice* and *cough*,

and produce the *huskiness* commonly spoken of as "*croupy*."

The distinguishing symptom of croup is this *huskiness* in the *voice* and *cough*. One of the effects of *violent* congestion of the mucous surfaces is the exudation of an *albuminous* substance, about the consistence of boiled *white of egg*, of a *dirty white* color, inclining to a shade of *yellow*. This forms *inside* the windpipe, and *over* and *around* the vocal chords and epiglottis, and may even extend downward into the *bronchial tubes*. In fatal cases, death results from this albuminous matter gradually closing up the passages and preventing the admission of air to the lungs.

In *children*, as a rule, the disease begins in the larynx and trachea, though in rare cases it first makes its appearance in the *throat*, and rapidly spreads to the larynx. In *grown* people it almost invariably commences in the *throat*, with a sense of *soreness* and swelling of the *tonsils*, and gradually spreads downward. In the adult there is but little difference between *croup* and *diphtheria*. Both produce a false membrane of the same kind, and tend to death by *suffocation*. Croup is very rapid in its progress. Within a few days, and, in many cases, within a few hours, the false lining begins to separate from the mucous membrane, and breaks up into fragments, which are expelled from time to time by the cough. No sooner is one layer thrown off than

another forms, and this goes on until the disease is arrested or death ensues. All the danger to the patient lies in the obstruction to breathing which this false membrane produces.

The *causes* of croup are whatever will produce a severe congestion and inflammation of the mucous membrane of the throat and larynx. The *northeast wind* is regarded by many physicians as peculiarly one of its exciting causes; but this is precisely the wind most likely to give us cold. In England, the *east wind*, blowing across the German Ocean, is believed to be a common cause of croup, and it, too, is a *raw damp wind*, fruitful of *colds, quinsy, influenza*, and *bronchitis*. I never have been able to trace croup, whether occurring in children or in the adult, to any cause which did not tend to *chill* the surface, and *drive the blood in upon the mucous membrane*.

The *treatment* of croup depends much on the age of the patient; but the same general plan must be followed in all. In children under three years of age, we must be entirely governed by the *symptoms*, for we cannot rely on them to either express their sufferings or realize the danger.

The first thing to attend to is *external warmth*. Try to bring back the blood to the surface of the body and produce *perspiration*. Hot bottles to the feet, and extra covering upon the bed, are never to be neglected. Next apply a *mustard plaster* to the

upper part of the *chest*, and in five or ten minutes transfer it to the *back*, between the shoulder-blades. Mustard acts very speedily and powerfully on the skin of young children, and the effects of a single application remain for days. One application, *if the mustard be good*, to the chest, and one to the back, is usually sufficient. After which it should be applied to the feet and extremities, and repeated from time to time during the whole course of the disease. The object is not only to draw the blood to the surface, but to draw it *away* from the part of the body in which the disease is seated.

Having attended to the warmth of the body, and applied the mustard, give the child an *emetic*, consisting of ten grains of *powdered ipecac* in a teaspoonful of *sirup of ipecac*. This is the simplest kind of emetic, and will probably act within fifteen or twenty minutes. If it does not, a teaspoonful of *sirup of ipecac* should be administered every ten minutes until free vomiting is induced. The good derived from an emetic is two-fold. *First*, it produces a powerful tendency of blood to the skin, and favors perspiration; *second*, it unloads the air-passages of mucus and facilitates expectoration. In a majority of cases, if these means are promptly applied, the disease will be cut short before the false membrane has fairly begun to form. If the little sufferer be not relieved after the operation of the emetic, however, a mixture containing *tartarized antimony* in

combination with ipecac, *one-eighth* of a grain of the former to *two grains* of the latter, should be given in some bland mucilaginous fluid, as barley-water sweetened, or sweetened water made mucilaginous by the admixture of gum-arabic, every half hour, not for the purpose of producing active vomiting, but to keep the child *nauseated*. From time to time the child will vomit *moderately* from the effect of this mixture, and each time will force up from the larynx mucus, mixed with fragments of the false membrane.

In case vomiting should not follow the use of the *ipecac* and *antimony*, and the child breathes with difficulty, a mixture composed of sulphate of *zinc*, *ipecac*, and *squills*, must be substituted for the antimony and ipecac. The proper proportions are as follows:—

R. Sulphate of zinc—15 grains.  
Sirup of squills—1 ounce.  
Ipecac in powder—30 grains.  
Water (warm)—5 ounces. Mix.

This makes a *six-ounce* mixture, of which *two* teaspoonfuls may be given to a child under three years, and *three* or even *four* teaspoonfuls to one above that age, every five minutes until it produces free vomiting. After which it is well to diminish the dose to *one* teaspoonful, and repeat it every quarter or half hour, according to its effects, and the urgency of the case.

During the whole course of the disease, great attention must be paid to the *throat*, for much of the distress and danger arises from mucons and albuminous obstructions about the *epiglottis*. Especially is this the case where the disease *begins* in the throat first, for we then have the false membrane over the whole mucons surface of these parts.

*Chloride of zinc*, two scruples, dissolved in an ounce of water or *tannin* of the strength of a dram to the ounce, applied to the throat by a swab, two or three times a day, affords great relief. The *tannin*, in particular, *coagulates* the albumen, and brings it away in large masses, leaving the throat quite clean. I have found it more efficacious than nitrate of silver, so commonly used for the same purpose.

Up to this point the treatment is purely local. Even the emetic is beneficial just in proportion to its local action in unloading the air-passages and driving the blood to the surface. *Bleeding and mercury*, the old remedies, are now seldom employed in croup. The former undoubtedly does harm by weakening the vital powers, while the latter, though still prescribed to a limited extent, has few advocates prepared to say that it does any good. But it must not be supposed from this that the treatment of croup is to end with the employment of merely *local* measures. The obstruction to respiration renders the blood *impure*, and the circulation of that impure blood weakens and endangers the

health of every part. The tendency of the disease is to suffocation, which means that sufficient *oxygen* cannot be obtained from the diminished quantity of air inspired to remove the poisonous *carbonic acid* from the blood. It is the presence of this agent in the blood that endangers the patient's life; and hence it is necessary that we should aid nature to get rid of it by artificial means. In the adult we can readily do this by the inhalation of *oxygen*, but in children, that, if not impossible, is extremely difficult. Here, however, we can give that which will supply oxygen to the blood, and at the same time act as a tonic and alkaline solvent of the false membrane. From three to five grains of *chlorate of potash* given every two hours throughout the whole course of the disease acts upon the blood, and *neutralizes*, if it does not expel, the carbonaceous poison. In adults the dose is twenty grains, repeated every two hours.

Such are the measures to be employed for the cure of croup. Parents having young children should always keep by them simple mixtures of the kind mentioned, ready for an emergency. When croup makes its attack it will not do to wait until morning, or throughout half the day, for a doctor. The treatment should begin with the first *husky* cough. The reason why so few children recover from croup is, that parents do not employ the means of cure in time. A few hours often makes all the difference between life and death to the patient.



---

LANE MEDICAL LIBRARY

---

To avoid fine, this book should be returned on  
or before the date last stamped below.

---

--	--	--

L736 Hunter, R. 5023  
H94 Popular treatise on  
1867 colds

NAME

DATE DUE

